

## **Holistic Healing: International Medical Students Share Their Narratives Around Stress, Anxiety, and Mental Health**

By Annabel Ricci and Richard Rubin

### **Abstract**

This paper is a narrative that explores the experiences of two medical students, Annabel Ricci and Richard Rubin. At the age of 18, they each moved away to attend a rigorous program. Throughout the paper, they discuss how they have been affected by the stresses of attending an international medical school on a Caribbean island, and what they have each done to cope and strive to succeed personally and academically. They describe their experiences using a holistic theoretical framework.

*Keywords:* holistic, anxiety, stress, schooling, international student, living abroad, mental health

## **Holistic Healing: International Medical Students Share Their Narratives Around Stress, Anxiety, and Mental Health**

Getting into medical school was such an exciting experience for us, that we did not think about how much of a strain it would take on our well-being. This autobiographical narrative research paper is about the stresses that we (Annabel Ricci and Richard Rubin) experienced as medical students. In this paper, we will be using a holistic theoretical framework to inform our perspective. We are Canadian citizens who grew up in Toronto and did not meet until attending medical school on an island in the Caribbean. Growing up in neighbouring regions, we shared similar childhood memories surrounding our schooling experiences and bonded over many, such as the Terry Fox Run ([terryfox.org](http://terryfox.org)). For those unaware of this event, the Terry Fox Run is a yearly event honouring a Canadian cancer patient who could not complete his goal of running across Canada in 1981 because of his medical condition worsening. Since a young age, we have dreamed of entering the medical profession hoping to help patients like Terry Fox one day. The two of us grew up in the same city and underwent the same education system with the same goal of pursuing medicine. Throughout this paper, we will discuss how we have been affected by the stresses of attending an international medical school on a Caribbean island and what we have each done to cope and strive to succeed within a challenging program.

### **Annabel**

To further introduce ourselves, I (Annabel) will begin. I left my hometown in Toronto at the age of eighteen and moved to the Caribbean for a six-year MD Program right after graduating high school. I am now twenty-years-old and entering my third year of the program, and I am scheduled to graduate by age twenty-four. I have always been a high achiever throughout my schooling career, and medical school has been no different. Until medical school, I did not know

what it was like to reach my limit. In elementary school, I could learn every tiny detail of information necessary for each evaluation in ample time, and I did not need to put in that much time studying. However, there is always more to learn in medical school, and it feels impossible to know everything. This has resulted in changes to my study habits, such as setting time limits because there will never be an end to the information, and I need to stop myself before I overwork myself. Throughout this paper, I will continue to talk about the pressures in my life amplified by attending an international medical school. The goal of this autobiographical narrative research paper is to share our experiences and offer suggestions to others about the pressures of being in an intense professional program away from home. We hope that by sharing our stories others can be better prepared and learn from our experiences.

### **Richard**

Now I (Richard) will share some background about myself. I am a nineteen-year-old Canadian medical student. Like Annabel, I entered a six-year MD Program after high school and will enter my third year in August 2023. I knew I wanted to become a physician in grade eleven because I had an amazing science teacher who pushed me toward the STEM field. I had an affinity for sciences through school, but this teacher inspired me to do something good with that interest. Thanks to his influence, I decided medicine was the route for me. So far, medical school has been a journey that has challenged me to apply myself fully, and it is gratifying to see the results of hard work and dedication. As a multi-sport athlete in high school, I knew how to balance schooling with other extra-curricular commitments. Even with that experience, medical school has challenged me in ways I never thought were possible. However, I am very fortunate to live out my dreams and will always be grateful for those who helped and will continue to help me throughout my journey. I hope this paper gives prospective students an idea of the struggles,

challenges, and adversity they may face while on their journey and that it will be helpful to others as they see how I deal with adversity.

### **Literature Review**

The pressures of schooling may significantly impact individuals holistically. By this we mean that it will impact their mind, body, spirit, and emotions. According to Flannery (2018), excessive stress and anxiety in the school environment can lead to increased depression and anxiety disorders, decreased self-esteem, decreased cognitive memory, decreased ability to form relationships, and hindered academic performance. These cognitive impacts may also affect physical health due to the interconnectedness of the mind, body, spirit, and emotions. To explain further, prolonged stress and anxiety may result in disrupted sleep patterns and a weakened immune system (American Psychological Association, 2023). The harsh and structured schooling environment may harm students' health by introducing stressors which may lead to further physical effects.

We both can relate to these stresses' impact on our body, mind, spirit, and emotions. Fortunately, we found that in our lives, there are things that can be done to mitigate this. There are holistic practices, for example, that we found helpful. Similarly, according to Aladakatti et al. (2019), an experimental group that followed a curriculum with an integrated, holistic approach to learning had significantly decreased stress, depression, and anxiety. Therefore, according to Aladakatti et al., and as we also discovered, approaching learning from a holistic perspective which encompasses a curriculum that is cautious of one's mind, body, spirit, and emotions, may have significant health benefits for students.

Individuals going through a rigorous schooling program may experience and learn to cope with stress in various ways. What triggers an individual's stress can vary from person to

person. Given this, it may be helpful to equip future students with the techniques that others have used to reduce stress and anxiety, hoping that this or something similar might help them too. Although the degree of stress may vary, sharing what others have done to cope might be worthwhile. For example, Stubbs et al. (2017) note that increasing exercise levels significantly improved anxiety and stress in patients; so, if students can balance studying and physical activity, their stress about school may decrease. Given the seriousness and ubiquity of this, as evidenced by our experience and many of our fellow students who share with us their challenges, it might be worth trying strategies to determine which ones, and if they, will help. It is unlikely that schools will change their practices enough to become less stressful in the near future; therefore, it is incumbent on individuals to find solutions that will hopefully work for them, which is what we continue to do.

Additionally, some students, including Annabel, have found that mindfulness strategies, including meditation, reduces stress and anxiety. For instance, Basso et al. (2019) found that daily meditation decreases anxiety. They found that participants that meditated daily for eight weeks scored lower on the anxiety part of the Trier Social Stress Test. Furthermore, meditation also showed marked improvements in mood and memory (Basso et al., 2019). All of which are beneficial to students in a rigorous program. Physical activity and mindfulness practices are part of the holistic approach to reducing the stress associated with school. Therefore, it may be recommended that students try these strategies or find something else that works for them to manage school-related stress.

## **Methodology**

For this research, we decided to use an autobiographical narrative methodology. One goal of autobiographical narrative research involves retelling stories from one's life to potentially

benefit the lives of others. This method was the most appropriate choice for this paper since our goal was to share an in-depth richness of two people's experiences to help readers and future medical students. This approach allows readers to understand the details and emotions the subjects may have faced (Hollstein, 2019). Additionally, narrative research may enable readers to gain insight and apply the lessons learned to their lives. This approach may humanize research methods by enabling readers to make sense of their own lives and experiences. Although this method does not allow for generalizations to be made since a sample size of two is very small, it provides readers with contextually sensitive theories to foster a deeper connection between research and the lives of real people. For these many reasons, autobiographical narrative research was the best choice for our goal of this research.

### **Theoretical Framework**

Holistic education is a theory about how students should be taught and educated. The philosophy behind this approach is to combine the effects of mind, body, spirit, and emotions to focus on their interconnectedness—the relationship between how each pillar can affect an individual's learning (Mahmoudi et al., 2012). No two students are alike; this approach recognizes that students are more than the sum of their parts. Holistic education aims to create well-rounded learners who can learn meaningful tools for their overall health. By picking this framework, we can give those pursuing a challenging educational program a more qualitative understanding of the struggles, successes, and effects we, as students, face. Readers can understand how medical school affects us in all aspects of life. This is why we chose holistic education to illustrate our experience with medical school.

### **Results**

#### ***Annabel***

**Mind.** The mind, along with our body, spirit, and emotions, are interconnected and serve to impact school stress. Although they are interconnected and I recognize that my mind cannot be separated from my body, spirit, and emotions, I will bracket the mind as it has sometimes traditionally been understood to clarify my point.

The effects of school stress on my mind played a significant role in my overall well-being. Imposter syndrome is one of the main phenomena that has weighed heavy on my mind. Imposter syndrome is a term used to describe the belief that I am constantly behind, that everyone else is doing better than I am, and that I do not belong. Despite being on the chancellor's list every semester and having a 4.0 average, I still feel this way. Sometimes evidence to the contrary is not enough to eradicate these thoughts. I spend a lot of my days studying, so I am achieving results, but it's with much hard work.

Medical school involves a lot of studying, which takes up a lot of my spare time. I have always believed that everyone else in my program is relaxing or hanging out with their friends while I am studying, resulting in increased feelings of stress and anxiety. I would always be so confused about how other students in my program have spare time, but my "free" time is spent studying. I continue to fight these thoughts and work to understand that my mind has tricked me. During the day, while I am trying to get through the material learned that day, I see people on social media hanging out with their friends. This has resulted in me learning a few important lessons that have affected my thoughts and mind. First, social media posts are only a snippet of people's days. This means that I may not know the whole story. For example, I may see a post of someone and their friend at a coffee shop, but I may not know whether they ran into each other on the way out and posed for a picture. Seeing this photo may make me wonder how they spent hours with their friends when I was drowning in lectures, but I might not know the whole story.

Second, everyone studies best at different times, and I tend to try and keep my days free after 7 p.m. I like spending my nights relaxing, watching Netflix, or being with friends. This means I prioritize studying during the day to have my nights free. In contrast, others may study better late at night, which is my time to relax. During the time I spend relaxing, I listen to podcasts and meditate to help ease my mind from the stresses I have gone through during the day.

**Body.** My body also experiences physical symptoms in response to the stress and anxiety caused by schooling. Again, I recognize that mind, body, spirit, and emotions are interconnected, but I will speak about each separately for illustrative purposes. When I get stressed and experience anxiety, I feel nauseous, have a rapid heart rate, experience breakouts on my face, and experience constant headaches. There are many symptoms that people can experience during times of anxiety; however, these symptoms that I experience may also be felt by others. I found that my anxiety and stress were at its highest during my first year of the program. This may be because I was trying to balance moving overseas to an island in the Caribbean coupled with the high stress of schooling.

When I first moved away, I was required to live on campus in a dorm with twelve girls with whom I shared a kitchen and bathroom consisting of three toilets, three showers, and six sinks. While experiencing the stress and symptoms of anxiety on my body, living in this shared space exacerbated the effects on my body. Living in a small dorm room where the door opened into a shared kitchen with twelve girls who cooked on different schedules resulted in constant smells in my room. When feeling nauseous, the smells would exacerbate my symptoms. Additionally, the shared bathroom and kitchen were often dirty and smelly. Living in a dirty space also increased my symptoms of anxiety. I would stress about going to the bathroom in the middle of the night and needing to walk alone across campus to a different bathroom because my



bathroom would be unbearable. Overall, the effects of stress and anxiety implicated by a high-pressure schooling environment had significant effects on my body.

Aside from the stresses of living on campus exasperating the effects of anxiety on my body, acne breakouts on my face would cause me to spiral. I would be stressed about school, which caused the breakouts on my skin, and then I would stress about having blemishes, resulting in increased stress and breakouts. Experiencing breakouts would also result in deficits in my social life because I would not want to go places if my skin was not looking its best. This may sound petty, and it may be, but it is how I was feeling. The endless stresses and anxiety caused by schooling made me isolate myself, affecting my overall well-being. I find that when I physically feel unwell, drinking tea and using a hot water bottle as a warm compress on my stomach area helps ease my anxiety.

**Spirit.** Spirituality is another aspect that has affected my experience as a medical student. I am not religious, but I see spirituality as something that can be disconnected from religion. I like to think about spirituality as a force of love that connects my soul to the universe and other animate and inanimate beings. My peers, professors, patients, and others I interact with as a medical student affect my well-being. This means these individuals directly affect my mood, behaviour, and success, and I can also influence theirs. When professors approach me in a caring way, which exemplifies that they truly wish the best for my well-being, I find that my stress and anxiety decrease. For example, during my first year of medical school, I had a professor that would drop our lowest exam grades. I interpreted this act of kindness as the professor's way of telling us students that they understand the pressures of medical school and that life will have unforeseen circumstances. Some may argue that this gesture may encourage students not to study and flunk an examination without consequences, but for me it did the opposite. As a student in

the class, I studied for each examination as if it would count toward my final grade, but I studied with less stress and anxiety. Therefore, in this course, I feel like I was able to learn the most about the material and actually appreciate what I was learning, rather than cramming information last minute to earn a good grade. When I feel that schooling is being done in a way not based in love, it impacts my inner peace and makes me feel disconnected, and I have increased stress and anxiety levels. Being alone is best when I get increasingly anxious and stressed. Therefore, when schooling is done in a way to create a high-stress and competitive environment, it makes me feel isolated and like I am struggling alone rather than interconnected. In contrast, a holistic schooling model based in love makes me feel interconnected and supported, resulting in inner peace, compassion, and love.

When I feel that I am not in a loving and caring environment, I like to escape to the beach and do activities I love. I find putting myself in an environment that I enjoy helps me by distracting myself from the harsh stresses of medical schooling.

**Emotions.** I go through many emotions that are induced by the pressures of schooling. The main emotion that I often face is anxiety. This is due to drastic amounts of work to do with strict deadlines. I always strive to be the best that I can and perform to the best of my ability, which results in high levels of anxiety that I am putting on myself due to the pressures of the program. To get accepted into this program, I spent my summers volunteering at a hospital, shadowing doctors, working at a pharmacy, traveling on my own and attending an international summer institute when I was sixteen, and maintaining high grades. Upon entering medical school, many people believe that the pressures would lessen since you have reached your goal and are accepted into the program. However, this is not the case because the schooling environment is designed in a way to force competition between peers. Even though I have

entered the program, I must maintain my grades and extracurricular activities since I will eventually compete with thousands of students for limited residency opportunities. As a Canadian, this is a primary concern for those graduating from an international medical school because priority is given to those graduating from within Canada. Even if I were the most qualified applicant, it might not be enough to stop my mind from putting these stressful feelings in my head. The pressures implicated by this system have driven me to high levels of emotions. It is not all bad, though, since being a dedicated and hard worker has made me grateful for everything I have accomplished.

When I experience overwhelming emotions, going to the gym and being physically active helps to distract me from my feelings and allows me to focus on being in the moment. Another way I reduce stress is by being with my friends, and talking with members of my family. Laughing with my friends and hanging out with them can always improve my mood.

### ***Richard***

**Mind.** The mind is a powerful tool that can be trained to be the greatest asset of any person. I find the way I think interconnects with my body, spirit, and emotions. For example, if I am in a positive mindset, the rest of my body, spirit, and emotions are also uplifted, and I become more productive. I get into big upswings in mood and feel like I can accomplish anything. I get into this zone where things click. I understand the schooling material, I finish work quickly, and I can have that much-needed free time away from the books. That free time, whether it be socializing with peers, exercising, or just winding down with some Netflix, gives my whole being a relaxing, stress-free decompression.

People are constantly studying in medical school, and as a high school graduate, I was not used to that. It stresses me out watching other people scramble and study. It makes me feel

like I am not doing enough and need to be studying. This can lead to horrible anxiety, and I feel like I am falling behind. However, everyone works at their own pace. Some people always need to study to keep up; others seemingly can just look at the slides before the exam and do just fine. Since I pride myself on hard work, it has been a huge struggle to feel like someone outworked me. I have learned that for my own mental health, I need to block out others and focus on myself. What works for me may not work for other people. Everyone has different study methods and habits, but I know what to do to succeed. That is why I try not to focus on what and when other people are studying and instead focus on myself and ensuring that I am in a conducive environment for learning. It sometimes feels that my mind is tricking me into feeling that I am not doing enough as I watch others studying; rather, I should focus on myself and trust myself when I believe that I have studied enough. Like Annabel, I have also been on the Chancellor's list and achieved a 4.0 average. This should indicate that what I am doing is working, but that is not always easy to accept.

I have found that planning my days out the night before has been very helpful for reducing some of the stress that comes with studying. If the night before, I can have a rough idea of what I want to do and when, then I find my productivity goes up while my stress of having to plan my schedule in the moment is also reduced.

**Body.** In my experience, through medical school, many of my fellow students, unfortunately, tend to neglect their bodies. I find that it is definitely a challenge to balance the demands of classes, extracurriculars, and studying. I find myself sacrificing time to schooling that I would otherwise be dedicating to my physical health. From reducing the amount of sleep I get, to skipping workouts, my body tends to suffer the most from schooling. During high stress, sleep is the first pillar of my body that falls. I will sacrifice my sleep to get in more hours of

studying. I will try to supplement the lack of sleep with either caffeine or taking naps. This further disrupts my sleep schedule, and I become increasingly tired. This becomes a spiral, reducing my time studying because I feel less focused throughout the day. When I normalize my sleep schedule, I am considerably more productive and feel much better. It always surprises me how much better I feel and work when I prioritize my body's health. Being an athlete through high school, I was used to getting ample exercise and physical activity every day. During high school, I found the school workload easier to manage than while in medical school, so my body suffered less. However, while in medical school, I still aim for three to five workouts a week and at least one night where I get out and play a sport. While I am not as active as I was before, I still try to maintain good workout habits, and I feel a lot better after a good workout. I have realized that my overall well-being benefits by not neglecting exercise.

Another essential part of body health for me is diet. Being away from family and on a small island in the Caribbean, my eating routine and options have changed, so it becomes tough to fuel my body with the proper nutrients. Fried foods and heavy carbohydrates have dominated my diet. I find that I am eating fewer fruits and vegetables, and so it is hard to gain muscle mass because I am leaner. Like Annabel, I, too entered the program as an eighteen-year-old right out of high school. In my two years on the island, my weight has fluctuated from 182 pounds up to 230 pounds. Given my age, I would expect that my weight and muscle mass would change, but I feel that for me a 50-pound swing in two years is pretty extreme. It can be very challenging to stay fit and eat clean while studying abroad, and I am trying to make healthy eating a priority and I believe I can do it with proper time management. While the pressure of schooling is immense, I try as hard as possible to maintain my physical health. I listen to what my body needs and may even take a day or two break from studying so I can really focus on cooking clean meals for the

next week. While also getting into the gym and getting my heart rate up, building a sweat and pushing my body to get stronger.

**Spirit.** Spirituality may be the most complex part of the holistic approach for me to talk about. I believe that spirit embodies everything about me beyond a physical plane. A mix of emotions, willpower, and my soul come together to determine my spirit's well-being. The love and compassion that surrounds the educational landscape are vital to the health of each individual's spirit. I found that when I first moved, my spirit was wounded. I missed home, my friends, and my family. There was not the loving, caring environment I was so used to having, especially after the pandemic, where I would spend every day with my family. It was a big adjustment and it was not an easy transition. When I came home at night after classes, I felt very lonely and wanted my friends and family with me. Though, as time passed and I made more friends, my spirit returned. My new friends and I went through similar experiences with moving away, and it became very easy to connect.

Maybe my new friends and I all eased each other's loneliness and put the love and attention we would typically give at home to each other. Regardless, we ended up forming a family of our own. From dinners together to walking to classes, we did everything together. The bond we formed as friends would make the rest of the term extremely enjoyable, and by the end, we were all sad we had to go home. Those connections made school so much easier, and the stress of finding friends disappeared. I also performed better in school with my friends, as we would all help each other study and understand concepts. That caring environment is vital to a successful holistic approach to education. Creating a new loving community was key to improving my well-being.

Something that I have found to be helpful when trying to mend my spirit is taking some time out of my schedule and calling either my friends or family back home. We live in a day and age where close ones are just a call away, so I try to take full advantage of it and stay connected to my roots.

**Emotions.** I am an objective and analytical thinker. My capacity for having and understanding emotions is rather limited but going through medical school has brought me highs and lows that I have never experienced. I am now coming to realize how interconnected the mind, body, spirit, and emotions truly are. I love what I learn and what I am studying. I find it interesting, and I am very engaged in the classroom. However, school is still stressful and makes me anxious, such as waiting for those results before and after a test. Knowing there is nothing more you can do, you just have to wait and see how you did. That is the most anxiety-inducing situation I have been in as a student. When those test scores are released and I finally see my results, it is usually a euphoric high and a release of stress. It is unfortunate knowing that my mood and happiness depend so much on how well I am doing in school that even one bad test mark could affect my mood for weeks.

Although the stress from school is intense, I still find time for happiness. Socializing with friends is a big way to destress and find happiness. My friends that I made in the program are all going through the same thing I am. A certain comfort comes from knowing other people are in the same boat as you. My friend group can cheer each other up when we are low and celebrate with each other when we are high. Making friends in a foreign country was very daunting but those friendships help me relax and, even for an hour a day, forget about the stresses of medical school. It is tough to balance all the things that come with medical school, especially the emotional aspect. Sometimes it is easier to turn off my emotions and not feel. If I did that,

though, I would never be able to connect to my peers or patients. At the end of each day, I reflect and remember that I am so lucky to have a fantastic support group around me to cheer me up when I am down. My friends, parents, and girlfriend all encourage me and make me want to strive for greatness. The dedication is worth all the long nights and hard study sessions. The gratifying feeling after I succeed never disappears, and I can always be proud that I accomplished something.

## **Conclusions**

### ***Recommendations***

**Annabel.** Some practices that have helped me maintain my well-being as a medical student are going to the gym, going to the beach, listening to podcasts, being surrounded by my friends, and calling my family. I find going to the gym as often as I can helpful since I love working out; however, I find that when I put pressure on myself and set unrealistic goals, such as going to the gym every day for an hour and a half, it results in me being more stressed out rather than less. Therefore, I live by going with the flow and listening to how I feel that day. Sometimes a workout will make me feel better, but other times, I would rather sit in my bed and listen to a podcast or watch Netflix during that time. On the weekends or nights when I have free time, I love to go to the beach and lay in the sand or dip in the ocean. It feels like a reset and allows my body to focus only on what is happening at that moment. Drinking tea and being comforted by a hot water bottle, I also find to be helpful and soothing. Finally, anytime I am really stressed or overwhelmed, I run into my roommate's room and just talk it out with her. Relying on others is fine sometimes, and my roommate is beneficial in allowing me to see clearly in times of stress. Overall, these are some strategies that have helped me maintain my well-being in a high-pressure program.



**Richard.** Some habits that have helped me manage my stress and balance my schedule are listening to what my body needs, planning a rough idea of my next day the night before, and socializing. I find it very helpful to listen to what my body needs. For example, if I am sore, I may skip a workout; if I am tired, I will take a quick power nap. When I listen to what my mind, body, spirit, and emotion need, I feel more energized and much better. This leads to less stress for me, and I work a lot more efficiently when my whole-being feels right. I have also made it a big habit to plan my day right before I go to sleep to organize myself the next day. When I do this, I can set goals and reduce the time spent making more minor decisions. I schedule things around classes; for example, if I have class from 8:30 a.m. to 12:30 p.m., I will eat lunch and workout right after, then shower so I have the rest of the day to study. Finally, socializing for me is one of the best ways to decompress and enjoy some free time. I will typically eat meals with friends or study with peers so that I get to catch up with them, because we are all pretty busy and get so little free time. Taking time for the people that matter is a good thing, and I often wish I could spend more time with them. Calling my parents is also a big part of my weekly routine. Moving away to a country thousands of miles away is difficult, and not being able to see them is hard. That is why connecting with friends and family works so well for me. Every person is different but given my intense schooling program these strategies help me reduce stress and improve my overall quality of life.

### **Limitations**

All research has limitations, and our qualitative autobiographical narrative study is no different. Due to the detailed nature of this study, we decided to focus on a sample size of two individuals. Being insider researchers has helped us understand the phenomena we are investigating in a way that an outsider might not be able to. Although there are benefits to using

this methodology, this type of research may not allow for generalizability. Given the methodology, this may mean that the results we found may not be transferable to a particular population in the same way a quantitative study might. Gathering data in a bigger sample size would increase the likelihood of generalizability, but it might not generate as rich and deep data (Barnes et al., 2023).

Another limitation of this study may be issues of memory. Memory issues may exist since this research method relies purely on retelling our stories. To mitigate the effects of memory issues, we looked back at pictures taken and read journal entries written during these times. These issues may arise when memories have been repressed or simply due to the forgetfulness of human nature. Sometimes, our brains may purposely forget harmful memories as a coping mechanism which may result in challenges when conducting research using the autobiographical narrative method.

### **Future Research**

In future, we would like to have a broader spectrum of people discussing their holistic approach to their medical educational experiences at our institution and others. Furthermore, studies may scope beyond medical school into other challenging degrees, such as law, to research if there are any overlaps in experiences/recommendations. This may allow researchers to understand better strategies to manage stressful educational experiences. Finally, a more quantitative approach is also beneficial to triangulate and reinforce what has been noted in this paper. Moving forward, we know it's not going to be easy, but we do feel better prepared for what's to come.

## References

- Aladakatti, R., Lau, B., Rentala, S., & Thimmaiya, S. (2019, March 8). Effectiveness of holistic group health promotion program on educational stress, anxiety, and depression among adolescent girls - A pilot study. *J Family Med Prim Care*. doi: 10.4103/jfmpe.jfmpe\_378\_18. PMID: 31041255; PMCID: PMC6482794.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6482794/>
- American Psychological Association. (2023, March 3). Stress effects on the body. *American Psychological Association*. <https://www.apa.org/topics/stress/body>
- Barnes, J., Conrad, K., Demont-Heinrich, C., Graziano, M., Kowalski, D., Neufeld, J., Zamora, J., & Palmquist, M. (2023) Generalizability and transferability. *Colorado State University*. <https://wac.colostate.edu/repository/resources/writing/guides/>.
- Basso, J. C., McHale, A., Ende, V., Oberlin, D. J., & Suzuki, W. A. (2019). Brief, daily meditation enhances attention, memory, mood, and emotional regulation in non-experienced meditators. *Behavioural brain research*, 356, 208–220.  
<https://doi.org/10.1016/j.bbr.2018.08.023>
- Flannery, M.E. (2018, March 3). The epidemic of anxiety among today's students. *National Education Association*. <https://www.nea.org/advocating-for-change/new-from-nea/epidemic-anxiety-among-todays-students>
- Hollstein, B. (2019, September). What autobiographical narratives tell us about the life course. Contributions of qualitative sequential analytical methods. *Science Direct Publishing*.  
<https://doi.org/10.1016/j.alcr.2018.10.001>

Mahmoudi, S., Jafari, E., Nasarbadi, H. A., Liaghatdar, M. J. (2012, May 9). Holistic education:

An approach for 21 Century. *Canadian Center of Science and Education*. :

<http://dx.doi.org/10.5539/ies.v5n3p178>

Stubbs B., Vancampfort D., Rosenbaum S., Firth J., Cosco T., Veronese N., Salum G.A., &

Schuch F. B. (2017, March). An examination of the anxiolytic effects of exercise for

people with anxiety and stress-related disorders: A meta-analysis. *Psychiatry Research*,

249, 102-108. <https://doi.org/10.1016/j.psychres.2016.12.020>

*Biography:*

Annabel Ricci is a medical student at St. George's University School of Medicine. She moved to the Caribbean for medical school at the age of eighteen to enroll in a Six-Year MD Program and is currently in her third year of the program.

Richard Rubin is a Medical Student at St. George's University School of Medicine. He enrolled at the age of seventeen into the Six-Year MD Program and is currently completing his third year of the program.